MPD 8570.1
REVISION A
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MARSHALL POLICY DIRECTIVE

AD01

MSFC ENERGY MANAGEMENT PROGRAM

DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		7/27/01	MPD 8800.1 revised to reflect a new document number (MPD 8570.1). Also, document revised to incorporate changes from NPG 8570.1, "Energy Efficiency and Water Conservation Technologies and Practices," and minor editorial changes.
Revision	A	9/27/2004	Changed "must" to "shall," "will" to "shall," "MPG" to "MPR," and "NPG" to "NPR." Made minor changes to office codes. Changed paragraph 8e to delete an action that is complete. The directive also reflects minor editorial changes.

1. PURPOSE

This Directive states Marshall Space Flight Center (MSFC) energy conservation policy and establishes organizational responsibilities for managing and reducing MSFC energy consumption and costs.

2. APPLICABILITY

This Marshall Policy Directive (MPD) is applicable to all MSFC personnel and onsite contractors.

3. AUTHORITY

NPD 8500.1, "NASA Environmental Management"

4. APPLICABLE DOCUMENTS

a. Executive Order (E.O.) 13123, "Greening the Government Through Efficient Energy Management"

b. Code of Federal Regulation, 10 CFR, Parts 435 and 436

c. NPR 8570.1 "Energy Efficiency and Water Conservation"

d. NPR 1441.l, "NASA Records Retention Schedules"

e. MPR 1440.2, "MSFC Records Management Program"

5. REFERENCES

None

6. DEFINITIONS

a. Energy Conservation Measure/Energy Conservation Opportunity. Any of a wide variety of methods to reduce energy consumption through changes in operational procedures or the application of new technological alternatives.

b. Energy-Intensive Building/Facility. Buildings or facilities that are subject to the energy-efficiency improvement goal for industrial and laboratory facilities set forth in E.O. 13123, Section 203. This definition includes laboratories, research facilities, electronic-intensive facilities, and facilities housing 24-hour-a-day operations that consume energy far in excess of the normal heating, cooling, lighting, ventilation, and water heating energy load requirements of a standard building or facility of comparable size.

c. Energy Metric. A mathematical equation used to track energy use against productive output, facility utilization, or physical facility characteristics to measure progress toward energy-efficiency goals.

d. Energy Savings Performance Contracting (ESPC). A contract that provides for the performance of services for the design, acquisition, financing, installation, testing, operation, and where appropriate, maintenance and repair of an identified energy or water conservation measure or series of measures at one or more locations. Such contracts provide that the contractor incur the costs of implementing energy-savings measures, including at least the cost (if any) incurred in making energy audits, acquiring and installing equipment, and training personnel in exchange for a predetermined share of the value of the energy savings directly resulting from implementation of such measures during the term of the contract. Payment to the contractor is contingent upon realizing a guaranteed stream of future energy and cost savings. All additional savings accrue to the Federal Government.

e. Life-cycle Cost. The sum of all the costs, recurring and nonrecurring, related to a product, structure, system, or service during its life span or specified time period.

f. Mission Variable Facility. An energy-intensive building or facility for which NASA claims exemption from energy-efficiency improvement goals for standard buildings and industrial and laboratory facilities set forth in E.O. 13123, Sections 202 and 203. Exemptions are based on the basis of technical or economic infeasibility of making significant energy-efficiency improvements due to the facility's physical nature or where conventional performance measures are rendered meaningless by an overwhelming proportion of process-dedicated energy.

g. Non-mission Variable Building/Facility. A standard building or facility that is subject to the energy-efficiency improvement goals for Federal buildings set forth in E.O. 13123, Section 202. This category includes office buildings, storage buildings, laboratories, and other research and development buildings that are not energy-intensive.

h. Renewable Energy Requirements. The requirement that a given percentage of power be generated from renewable sources like wind, solar, and geothermal systems.

i. Utility Energy-Efficiency Services Contract (UESC). A contract for demand side management services provided by a utility to improve the efficiency of use of the commodity being distributed. Services can include, but are not limited to, energy efficiency and renewable energy project auditing, financing, design, installation, operation, maintenance, and monitoring.

j. Water Conservation Measure. Any of a wide variety of methods to reduce water consumption through changes in operational procedures or the application of new technological alternatives.

7. POLICY

MSFC's policy is to ensure that new facilities are designed and constructed to meet or exceed the energy performance standards set forth in 10 CFR Part 435 and to reduce energy and water consumption and cost whenever possible in all facility operations.

8. RESPONSIBILITIES

a. The Manager, Facilities Engineering Department (FED), Center Operations, shall assign a key individual for MSFC to serve as the focal point (energy manager) for all energy matters and to manage and monitor energy consumption and conservation.

b. The Facilities Design Group, FED, shall:

(1) Perform energy surveys and identify energy conservation measures, water conservation measures, and renewable energy technologies that are life-cycle cost effective (in accordance with 10 CFR, Part 436).

(2) Survey facilities every 3 years to determine where potential for dual fuel capability exists.

(3) Assure all designs give full consideration to energy efficiency in compliance with 10 CFR, Part 435. Contract file shall contain a statement certifying this has been done.

(4) Assure that energy-efficient products are procured and installed.

(5) Assure that sustainable design principles for siting, design, and construction of new facilities are applied.

c. The Energy Manager shall:

(1) Measure the Center's progress toward achieving the energy–efficiency goals for non-mission-variable, energy-intensive, and industrial facilities using the energy metrics described in NPR 8570.1.

(2) Provide recommendations to the Director, Environmental Management Division, NASA Headquarters, on additions or deletions to the list of exempted mission-variable facilities.

(3) Prepare and annually update MSFC's Energy Efficiency and Water Conservation Plan listing specific energy conservation actions, projects, and initiatives (with their expected impacts) planned for future years which make the best practicable effort towards achieving the Center's energy conservation goals. Additionally, the MSFC Energy Manager shall update the Annual Energy Report in the NASA Environmental Tracking System in order to keep the Director, Environmental Management Division apprised of the Center's progress toward the reduction goals.

(4) Request funds and implement energy conservation and water conservation measures, which are the most life-cycle cost effective (in accordance with 10 CFR, Part 436).

(5) Request funds and implement renewable energy technologies in accordance with the Secretary of Energy's latest recommendation of 2.5 of the Center's overall electrical consumption of NPR 8570.

(6) Prepare and enter detailed quarterly energy consumption data for MSFC and offsite program facilities into the Headquarters' program within 90 days of the close of each fiscal quarter.

(7) Train employees, as required, and promote procurements of "Energy Star" and other energy-efficient products and life-cycle costing principles.

d. The Procurement Office shall provide support to FED for implementing ESPCs, UESCs, or Center-funded energy projects. The Procurement Office shall incorporate shared energy savings clauses in facilities and other support contracts in accordance with guidance provided by the NASA Associate Administrator for Procurement. The Procurement Office provides information in contracts stating that all energy-related products purchased shall be energy-efficient and life-cycle cost effective.

e. The Customer and Employee Relations Directorate shall publicize through the *Marshall Star*, *Daily Planet*, e-mail, etc., energy conservation outreach programs developed by FED.

f. Each Center Directorate and Staff Office shall appoint a key person to monitor compliance with the Utilities and Energy Conservation Program and take appropriate action to assure that equipment and lights are turned off and building temperatures are maintained in accordance with specific guidelines, where applicable, as enforced by the manager of FED or his/her representative, the MSFC Energy Manager.

g. Each Center employee shall be responsible for conserving energy in his/her respective area. When offices and other assigned spaces are not occupied, the employee shall turn off lights, desk lamps, radios, fans, computers (non-servers), printers (non-network), computer peripherals, copiers, and other nonessential, switchable, energy-using equipment, and unplug space heaters. Each employee shall exercise good judgment to conserve energy as if conserving at his/her personal residence.

9. RECORDS

MSFC Energy Efficiency and Water Conservation Plan. This record shall be maintained by the MSFC Energy Manager, AD22, in accordance with NPR 1441.1, Section 56.7, and shall be updated annually. Current and superseded plans for at least 2 years are retained for audit purposes.

10. MEASUREMENT

a. Non-mission Variable Building Energy Metric - Progress toward the energy-reduction goal for non-mission-variable buildings shall be calculated using British Thermal Units per gross square foot per year (BTU/GSF/Yr.) as described in subparagraph 2.3.1.1 of NPR 8570.1.

b. Energy-Intensive Facility Energy Metrics - Progress toward the energy-efficiency goal for energy-intensive facilities shall be calculated using the metrics for specific facility types as described in subparagraph 2.3.1.2 of NPR 8570.1.

11. CANCELLATION

MPD 8570.1 dated July 27, 2001

Original signed by
Robin N. Henderson for

David A. King
Director